

**SECRET**

OPTIONAL FORM NO. 10  
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UNITED STATES GOVERNMENT

## *Memorandum*

TO : DAD/IO

DATE: 28 June 1965

FROM : DAD/S&D

SUBJECT:

Corl, I view the operation of the antenna on these lines: the energy from the feed element is reflected by  $T_1$  and this energy must be reflected back phase with that which exists at the virtual aperture located at R. In the case of a parabolic antenna the reflector is so shaped that the physical distance results in a generally in-phase condition at this virtual aperture, or feed point R. In the case of this design, however, it seems to me that the size and spacing of surface of  $T_2$  (and any other surfaces that might be added) constitutes a stepwise approach to the continuum represented by the reflector surface of the parabola.

This type of design, however, would seem to permit easier construction which appears to be the basic reason for reduced cost and simplicity.